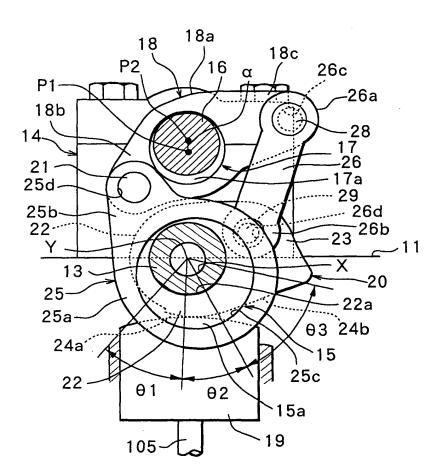
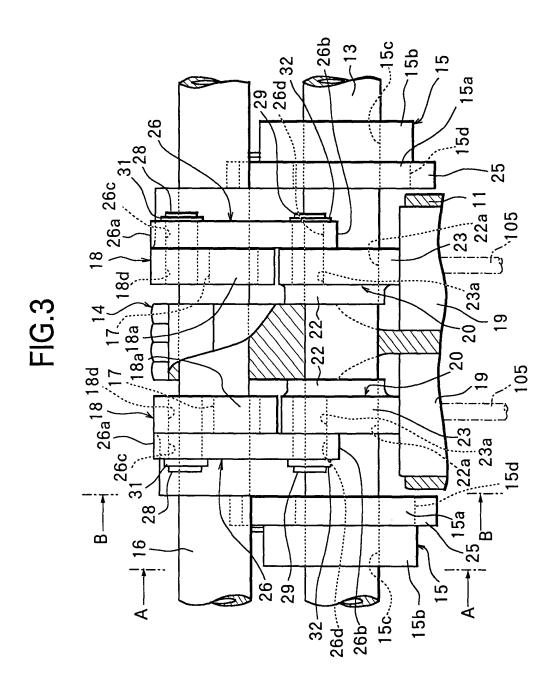


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FIG.2





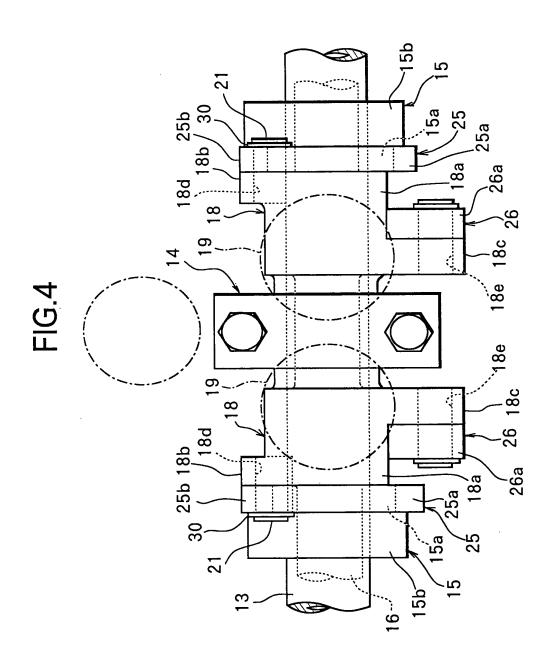
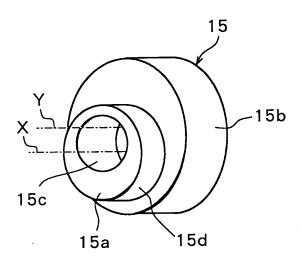
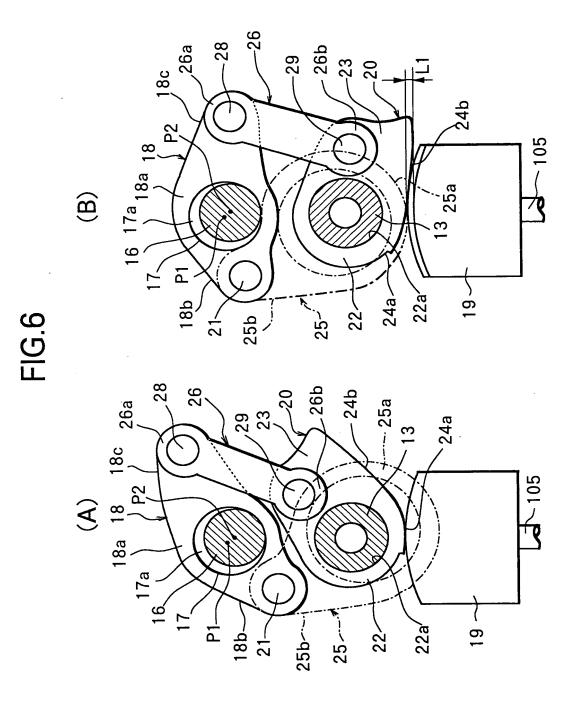
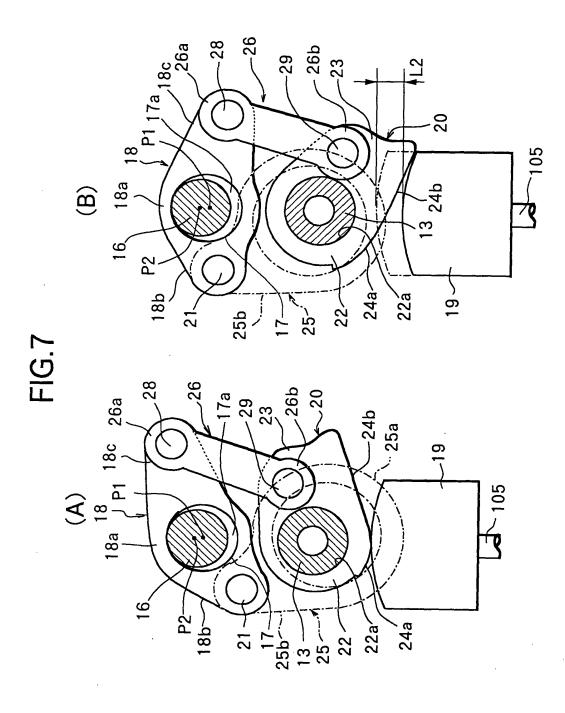


FIG.5







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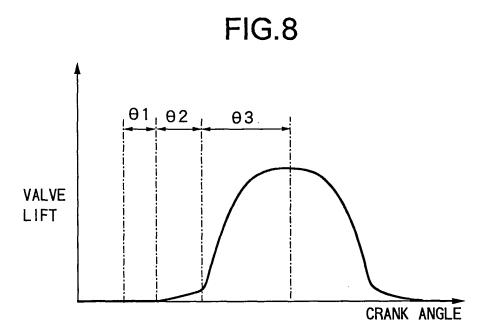
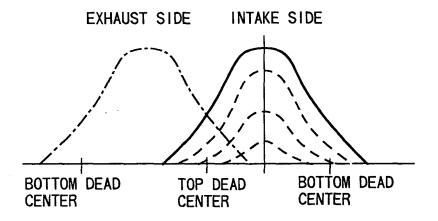
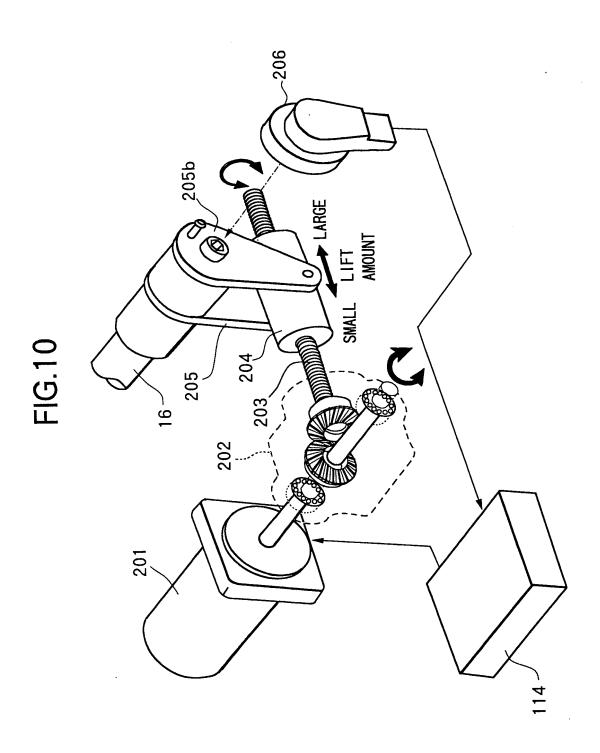


FIG.9





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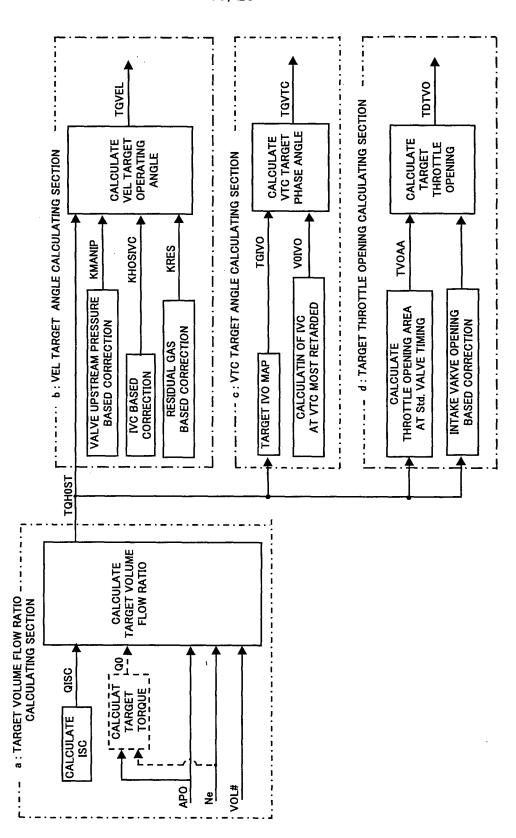


FIG. 1

FIG.12

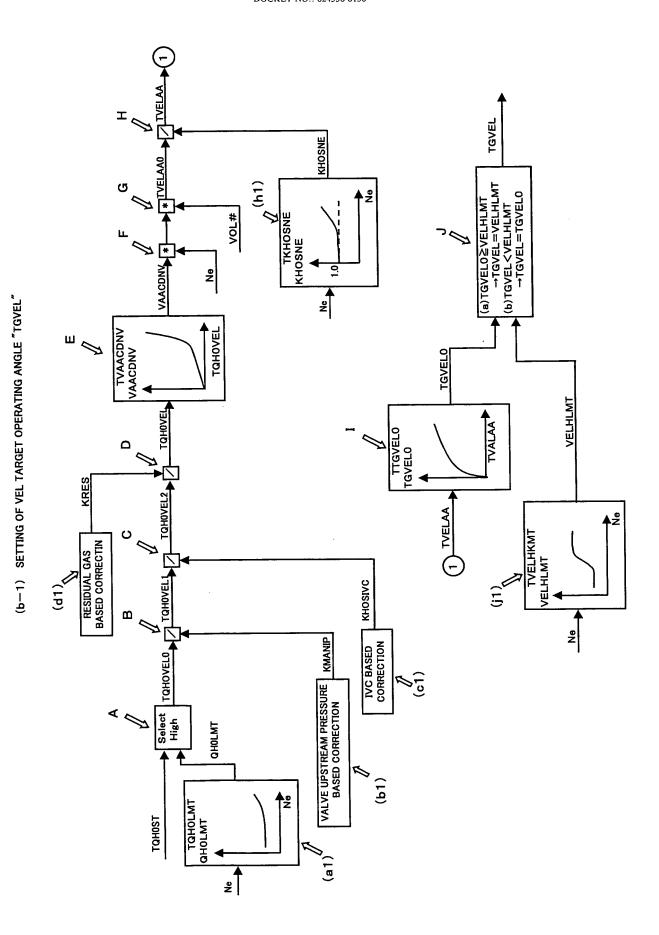
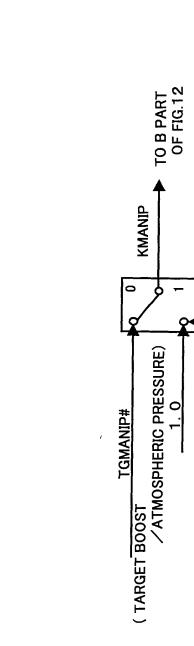


FIG. 13



(TQH0ST≦QH0LMT)

(b-2) SETTING OF VALVE UPSTREAM PRESSURE BASED CORRECTION VALUE "KMANIP"

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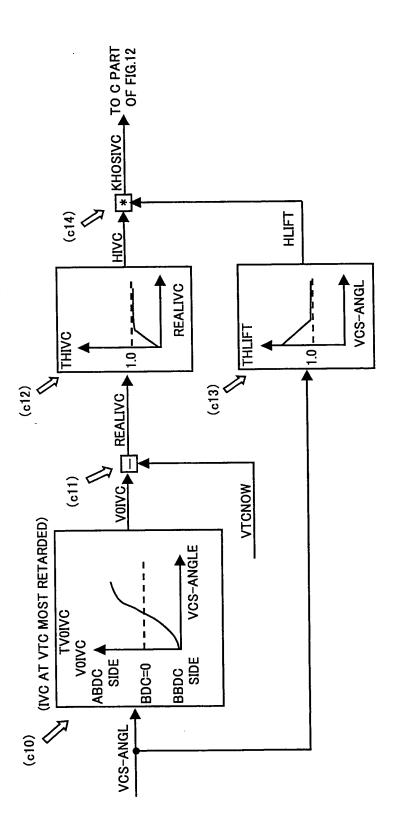
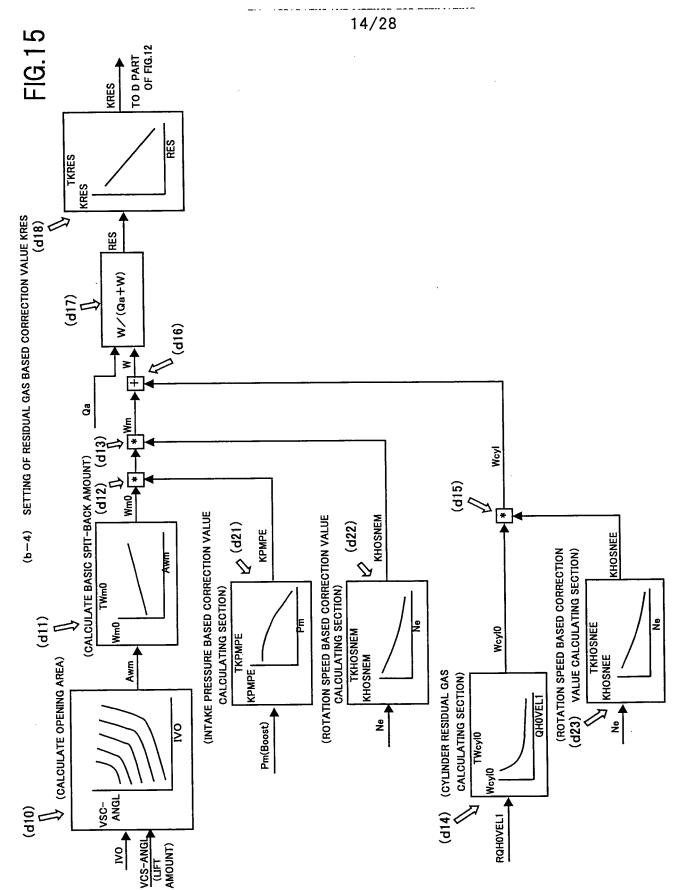


FIG.14

(b-3) CALCULATION OF VALVE TIMING BASED CORRECTION VALUE "KHOSIVG"



RESIDUAL GAS AMOUNT OF INTERNAL
COMBUSTION ENGINE, AND APPARATUS AND
METHOD FOR CONTROLLING INTAKE AIR
AMOUNT OF INTERNAL COMBUSTION ENGINE
USING ESTIMATED RESIDUAL GAS AMOUNT
Inventor(s): Is:...v IIZ KA et al.
DOCKET NO.: 024536-0130

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FIG.16

CHANGE IN SPIT-BACK GAS AMOUNT Wm DUE TO ROTATION SPEED Ne



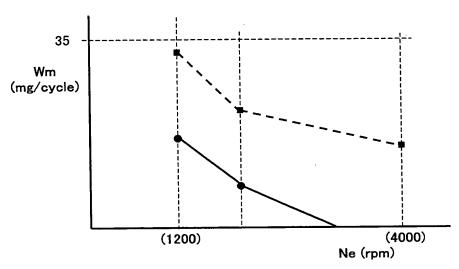
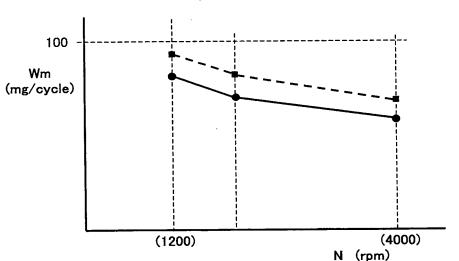


FIG.17

CHANGE IN BASIC RESIDUAL GAS AMOUNT Woyl DUE TO ROTATION SPEED Ne

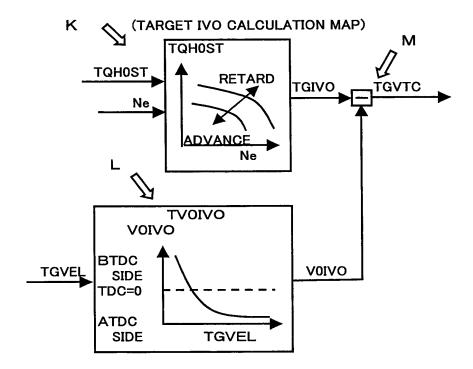
:VALVE LIFT AMOUNT-LOW(ex. 0.65mm)
---- :VALVE LIFT AMOUNT-HIGH(ex. 2.2mm)



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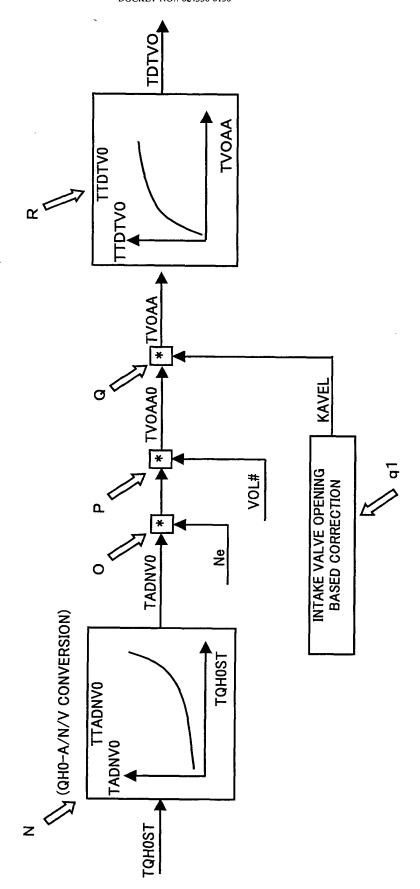
FIG.18

(c) SETTING OF VTC TARGET (PHASE) ANGLE "TGVTC"



(d-1) SETTING OF TARGET THROTTLE OPENING "TDTVO"

Title. APPARATUS AND METHOD FOR ESTIMATING RESIDUAL GAS AMOUNT OF INTERNAL COMBUSTION ENGINE, AND APPARATUS AND METHOD FOR CONTROLLING INTAKE AIR AMOUNT OF INTERNAL COMBUSTION ENGINE USING ESTIMATED RESIDUAL GAS AMOUNT Inventor(s): Isamu IIZUKA et al. DOCKET NO.: 024536-0130



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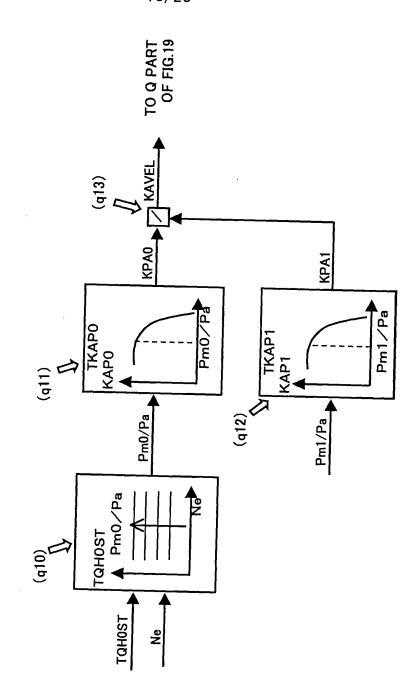


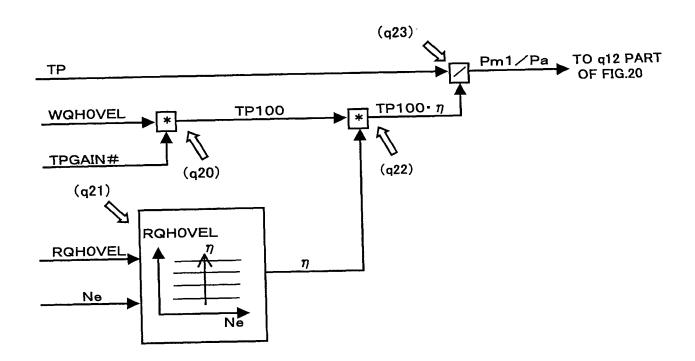
FIG.20

(d-2) CALCULATION OF INTAKE VALVE OPENING BASED CORRECTION VALUE "KAVEL"

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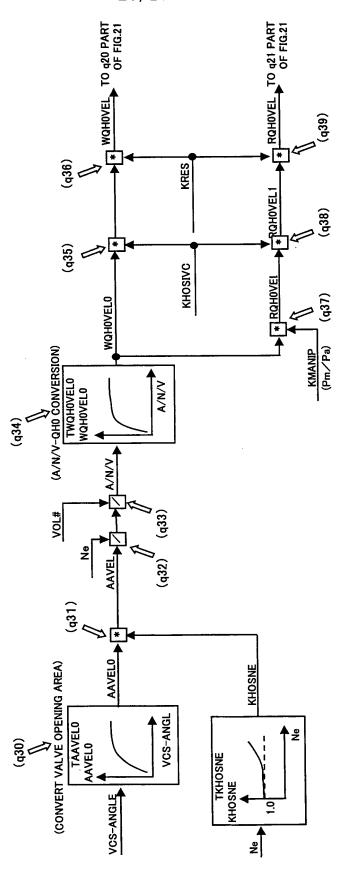
FIG.21

(d-3) CALCURATION OF PRESSURE RATIO(Pm1/Pa) AT THE TIME WHEN VEL OPERATES



(4-4) CALCULATION OF RATIO "WQH0VEL", "RQH0VEL" OF VOLUME FLOW PASSED THROUGH INTAKE VALVE

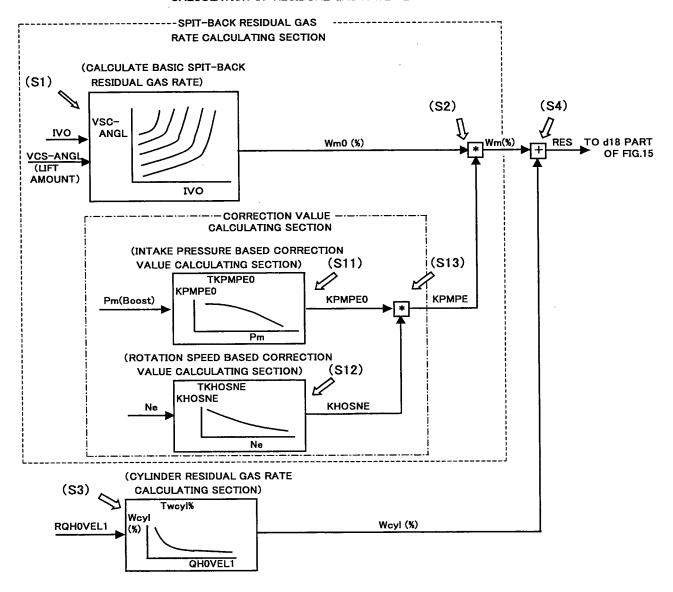
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METHOD FOR CONTROLLING INTAKE AIR
AMOUNT OF INTERNAL COMBUSTION ENGINE
USING ESTIMATED RESIDUAL GAS AMOUNT
Inventor(s): Isamu IIZUKA et al.
DOCKET NO.: 024536-0130



----Z 17 ZO

FIG.23

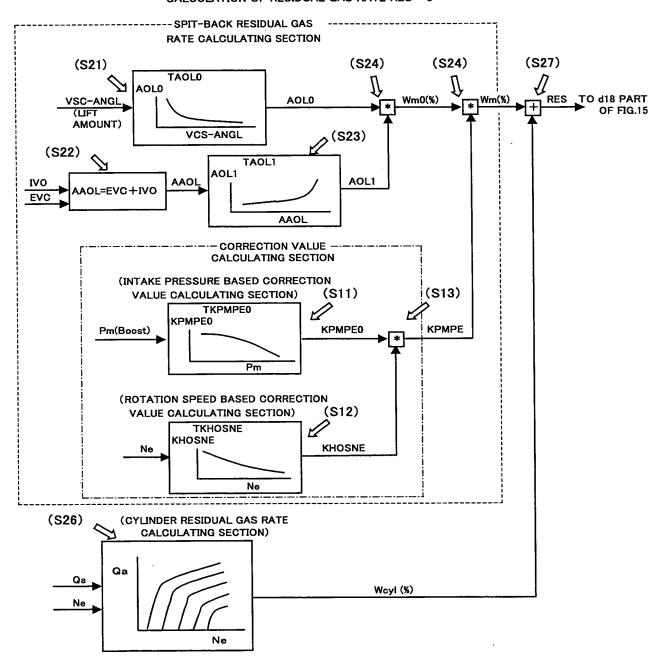
CALCULATION OF RESIDUAL GAS RATE RES - 2



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FIG.24

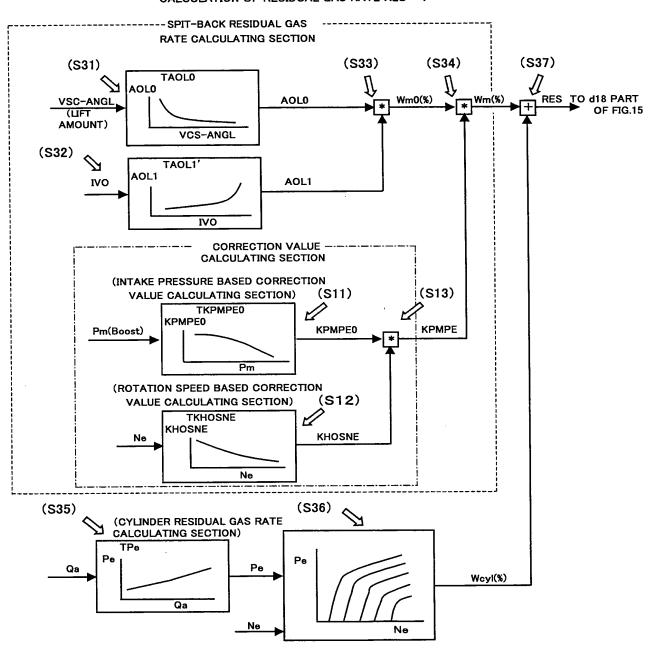
CALCULATION OF RESIDUAL GAS RATE RES - 3

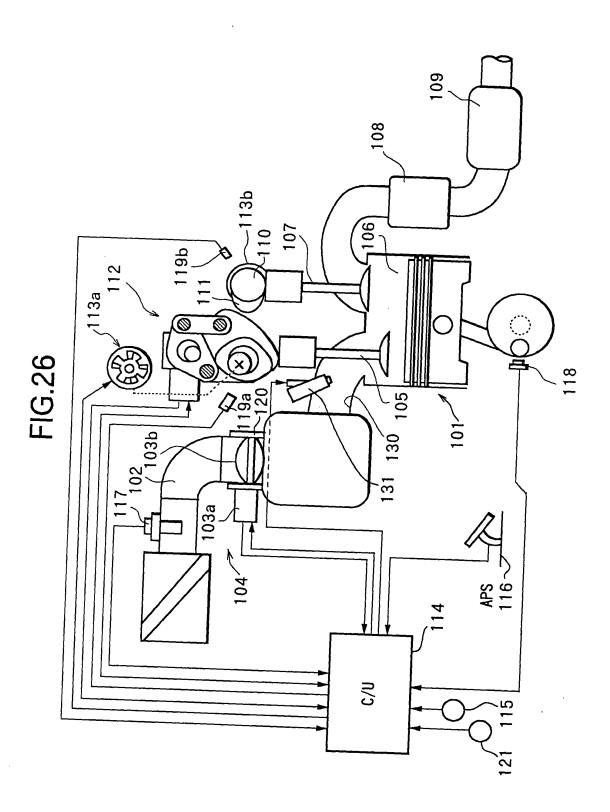


Z3/Z8

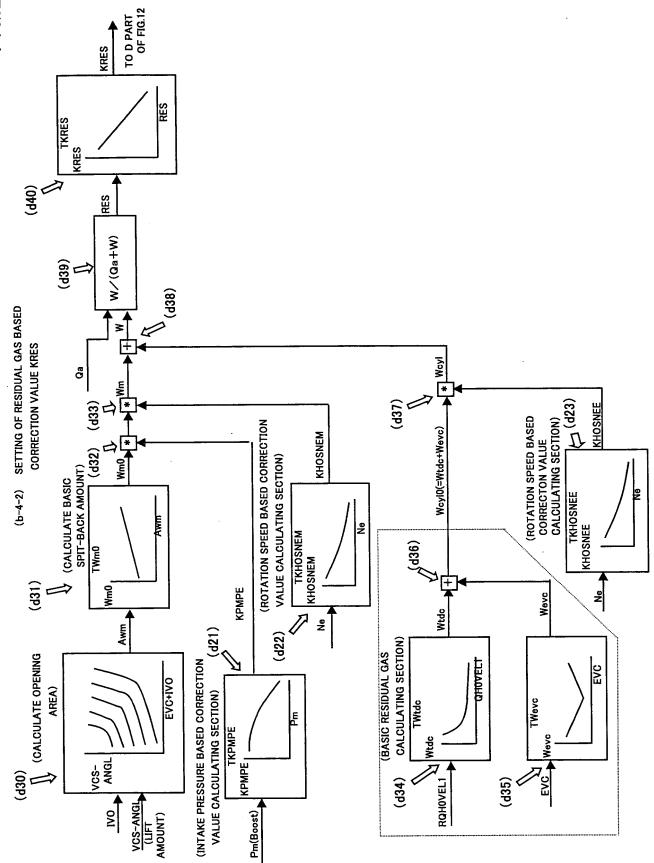
FIG.25

CALCULATION OF RESIDUAL GAS RATE RES - 4





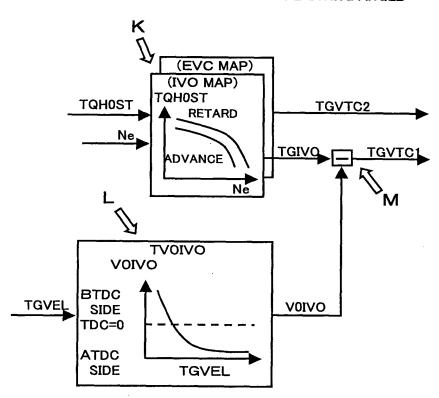
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FIG.28

(c) SETTING OF VTC TARGET OPERATING ANGLE



TO D PART OF FIG.12

RES

KRES

W/(Qa+W)

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(455)

RQH0VEL1

(b-4-3(1)) SETTING OF RESIDUAL GAS BASED CORRECTION VALUE KRES

(09P)

(429)

Ö

(453)

(452)

Y RETARD BY 30deg RETARD BY 20deg RETARD BY 10deg

(d51)

OPENING AREA) (450) (CALCULCULATE

Wm0 Wm0

E ADVANCED

KPMPE

Pm(Boost)

EVC MOST

VCS-ANGL

0

VCS-ANGL (LIFT AMOUNT)

